

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
8 April 2004 (08.04.2004)

PCT

(10) International Publication Number
WO 2004/029963 A2

(51) International Patent Classification⁷: **G11B 20/18**

(21) International Application Number:

PCT/EP2003/010235

(22) International Filing Date:

15 September 2003 (15.09.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

02021640.4 27 September 2002 (27.09.2002) EP

(71) Applicant (for all designated States except US): **THOMSON LICENSING S.A.** [FR/FR]; 46 Quai A. le Gallo, F-92100 Boulogne-Billancourt (FR).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **WINTER, Marco** [DE/DE]; Böhmerstr. 17, 30173 Hannover (DE). **KLAUS-BERGER, Wolfgang** [DE/DE]; Elisabethstr. 18, 30559 Hannover (DE). **KUBSCH, Stefan** [DE/DE]; Rehrener Str. 1, 31559 Hohnhorst (DE). **PETERS, Hartmut** [DE/DE]; Ohweg 34, 30890 Barsinghausen (DE). **JANSSEN, Uwe** [DE/DE]; Niedersachsenstr. 53, 30926 Seelze (DE).

(74) Agent: **THIES, Stephan**; European Patent Operations, Karl-Wiechert-Allee 74, 30625 Hannover (DE).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

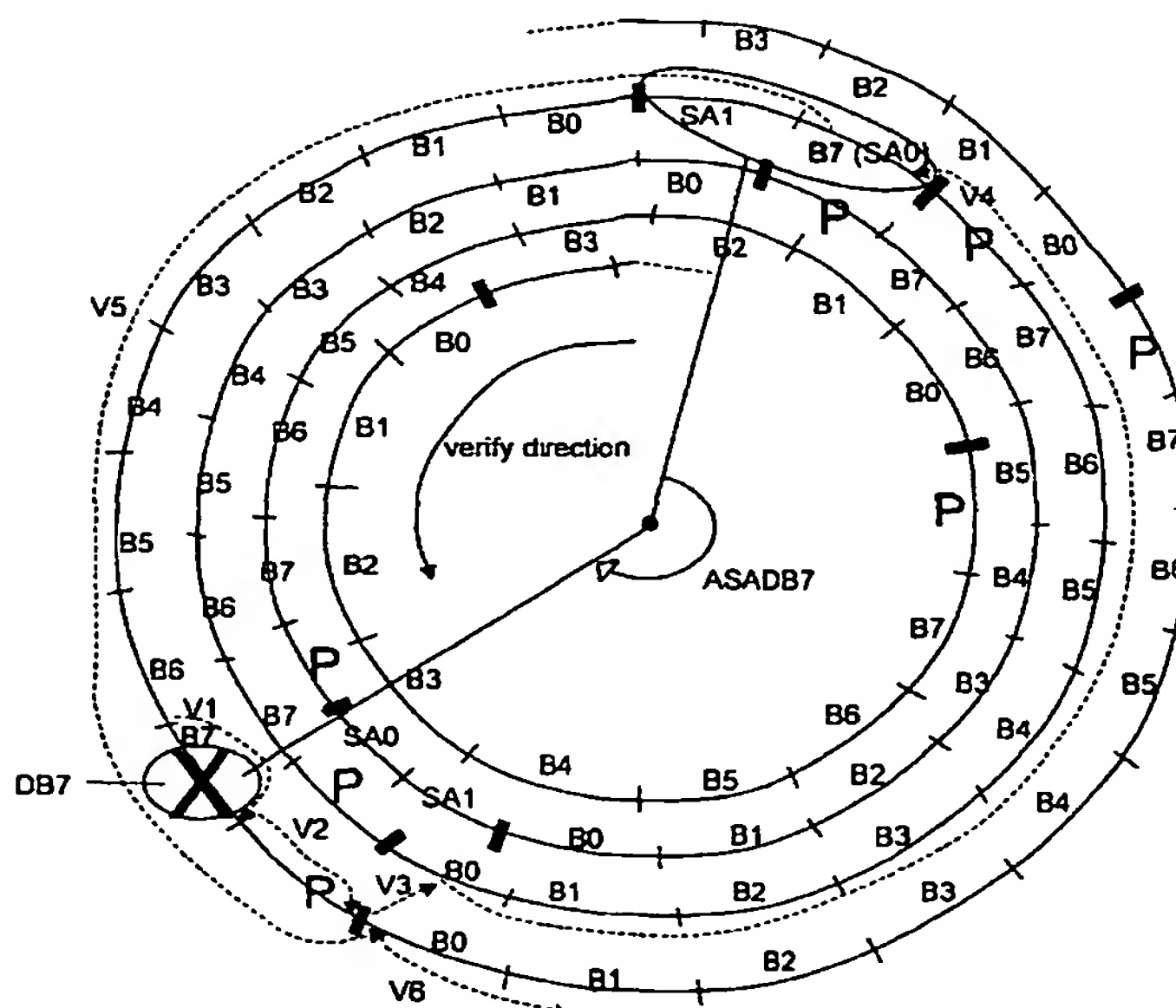
(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished upon receipt of that report

[Continued on next page]

(54) Title: METHOD AND APPARATUS FOR RECORDING A DATA STREAM ON A STORAGE MEDIUM



(57) Abstract: The resistance against recording defects (D) of a write-once optical disk is enhanced allowing realtime recording and playback of data streams with a single speed disk drive. A data stream is recorded in data blocks (B0, B1, ...) on the optical disk. An error correction block (P) for one or more data blocks is generated and written on the same optical disk during recording. A spare data area (S) is kept blank on the storage medium and used for storing a defect data block reconstructed by using the error correction block.



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.